

REMARKS

Claims 1-10 and 12-20 are in the case. Claim 20 is rejected under 35 USC § 112. Claims 1-10, 12-17, and 19-20 are rejected under 35 USC § 103 over USPN 6,370,487 to Dorrough in view of USPN 5,926,208 to Noonan et al., and claim 18 is rejected under 35 USC § 103 over Dorrough in view of Noonan et al. and further in view of USPN 6,721,952 to Guedalia et al. Claims 1, 15, and 20 are hereby amended. No new matter is added by the amendments. Reconsideration and allowance of the claims are respectfully requested.

COMMENTS ON EXAMINER'S RESPONSE TO ARGUMENTS

The examiner asserts that: (1) cropping does not necessarily reduce the size of the video stream; (2) Noonan is silent on the specific technique used for zooming; (3) Noonan teaches digital zooming, which is the same as cropping an image; and (4) optical zooming crops the full image to the desired image by using an adjustment to the lens.

As to assertion (1), the applicants have amended the independent claims so as to affirmatively recited that the cropping reduces the size of the video stream. This concept of reducing the size of the video stream by use of the parser is described in detail in paragraph [0029], and does not constitute new matter.

As to assertion (2), if Noonan is silent on the specific technique used for zooming, then (by definition) Noonan does not teach selective cropping that reduces the size of the video stream, as recited in the claims. When a reference is mute on a given aspect of the art, then it cannot be said to teach that given aspect of the art.

As to assertion (3), applicants respectfully disagree with the implication arising from the assertion that digital zooming is the same as cropping an image. The assertion could be a matter of semantics, but the implication is more substantial than that. The implication is that digital zooming reduces the data size of the image. Applicants respectfully disagree with that implication. When a digital camera digitally zooms, a selected portion of the view is electronically expanded to fill the entire image frame and the pixels from the selected portion are interpolated to produce the same number of pixels as the original image. For this reason, digitally zoomed pictures that are taken with a

digital camera are the same size as a picture taken without digital zoom. This can be verified using any digital camera, such as those that are commonly available. Thus, digital zooming does not reduce the size of the video stream, as presently claimed.

As to assertion (3), applicants agree in principle, but the wording is important. Optical zooming expands a smaller portion of the field of view to fill the entire field of view, and delivers the expanded portion to the digital sensor, thereby producing an image having the full pixel size of the sensor. However, applicants do not optically adjust the image. Instead, the claims recite that the parser selectively crops *the video stream* prior to delivery of the video stream *from the sensor* to the desktop, where the selective cropping reduces the size of the video stream. Thus, in the invention as claimed, it is not the optical image that is adjusted, but the video stream that is cropped (and reduced) after leaving the sensor.

Thus, neither optical nor digital zooming reduces the size of the video stream as presently claimed, and Noonan does not teach reducing the size of the video stream as claimed.

CLAIM REJECTIONS UNDER §103

Claims 1-10, 12-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorrough in view of Noonan et al. Independent claim 1 claims, *inter alia*, a system for inspecting a substrate, with a sensor that produces a video stream, a control interface, a network to transport the video stream and the control stream, a desktop having a display to present the video stream and user interface controls to control operation of the inspector by use of the control stream, and a parser to selectively crop the video stream prior to delivery of the video stream to the desktop, where the selective cropping reduces a size of the video stream.

Applicants first compare the primary reference against the elements of the claim as recited above, to determine wherein the primary reference is deficient. Then the secondary references are analyzed to determine whether they compensate for the deficiencies detected in the primary reference. If all of the references are deficient as to the same element or combination of elements, then the claim is patentable over the cited references.

Dorough does not describe, among other things, the parser that selectively crops the video stream prior to delivery of the video stream to the desktop. The cited references in combination describe a zoom function that, as explained by the examiner, provides a user with the ability to zoom in on a low resolution full image to obtain high resolution sub-images. This does not reduce the size of the video stream.

Noonen et al. do not compensate for the deficiencies of Dorough, in that Noonan et al. also do not describe cropping the video stream prior to delivering the video stream to the desktop, where the selective cropping reduces a size of the video stream. Thus, claim 1 patentably defines over Dorough in view of Noonan et al. Reconsideration and allowance of claim 1 are respectfully requested.

Dependent claims 1-10 and 12-14 depend from independent claim 1, and contain additional important aspects of the invention. Therefore, dependent claims 1-10 and 12-14 patentably define over Dorough in view of Noonan et al. Reconsideration and allowance of dependent claims 1-10 and 12-14 are respectfully requested.

Independent claim 15 claims, *inter alia*, a system for inspecting a substrate, with an inspector having a sensor, a control interface, a network, a desktop for receiving the video stream and the control stream, a display and user interface controls to control operation of the inspector across the network, a compressor to selectively compress the video stream, a decimator to selectively down sample the video stream, a parser to selectively crop the video stream prior to delivery of the video stream from the sensor to the desktop, and a codec to selectively set a frame rate of the video stream, where the selective cropping reduces a size of the video stream.

Thus, claim 15 also claims the parser as described above, which the combination of Dorough and Noonan et al. do not describe. Therefore, claim 15 patentably defines over Dorough in view of Noonan et al. Reconsideration and allowance of claim 15 are respectfully requested. Dependent claims 16-17 and 19 depend from independent claim 15, and contain additional important aspects of the invention. Therefore, dependent claims 16-17 and 19 patentably define over Dorough in view of Noonan et al. Reconsideration and allowance of dependent claims 16-17 and 19 are respectfully requested.

Independent claim 20 claims, *inter alia*, a system for inspecting a substrate, with an inspector having a sensor, a control interface, a network, a desktop for receiving the video stream and the control stream, a display and user interface controls to control operation of the inspector across the network, a compressor to selectively compress the video stream to a variable degree, a decimator to selectively down sample the video stream to a variable degree, a parser to selectively crop the video stream to a variable degree as specified through the user interface controls on the desktop, where the selective cropping reduces a size of the video stream, and a frame grabber to selectively set a frame rate of the video stream to a variable degree, where the compressor, decimator, parser, and frame grabber all reside within the inspector.

Thus, claim 20 also claims the parser as described above, which the combination of Dorough and Noonan et al. do not describe. Therefore, claim 20 patentably defines over Dorough in view of Noonan et al. Reconsideration and allowance of claim 20 are respectfully requested.

Claim 18 is rejected over Dorough in view of Noonan et al. and further in view of Guedalia et al. Dependent claim 18 depends from independent claim 15, and therefore claims *inter alia*, a system for inspecting a substrate, with an inspector having a sensor, a control interface, a network, a desktop for receiving the video stream and the control stream, a display and user interface controls to control operation of the inspector across the network, a compressor to selectively compress the video stream, a decimator to selectively down sample the video stream, a parser to selectively crop the video stream prior to delivery of the video stream from the sensor to the desktop, where the selective cropping reduces a size of the video stream, and a codec to selectively set a frame rate of the video stream, where the decimator and the parser operate cooperatively to selectively down sample the video stream to a lesser degree when the video stream is selectively cropped to a higher degree, and to selectively down sample the video stream to a higher degree when the video stream is selectively cropped to a lesser degree.

Thus, claim 18 also claims the parser as described above, which the combination of Dorough and Noonan et al. do not describe. Guedalia et al. do not remedy this deficiency, in that Guedalia et al. also do not describe the parser that crops the video stream prior to delivery to the desktop. Instead, Guedalia et al. describe a zoom function

that provides gazing at high resolution tiles of the image, which does not reduce the size of the video stream. *Further, none of the references – either alone or in combination – describe the inverse relationship and selective balancing between the down sampling and cropping functions of the inspector, as claimed in claim 18.*

Therefore, claim 18 patentably defines over Dorough in view of Noonen et al. and further in view of Guedalia et al. Reconsideration and allowance of claim 18 are respectfully requested.


CONCLUSION

Applicants assert that the claims of the present application patentably define over the prior art made of record and not relied upon for the same reasons as given above. Applicants respectfully submit that a full and complete response to the office action is provided herein, and that the application is now fully in condition for allowance. Action in accordance therewith is respectfully requested.

In the event this response is not timely filed, applicants hereby petition for the appropriate extension of time. If any fees are required by this response, such fees may be charged to deposit account 12-2355.

Sincerely,

LUEDEKA, NEELY & GRAHAM, P.C.

By: 

Rick Barnes, 39,596

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